

LESSON 3.3

Name Key

Date _____

Study Guide

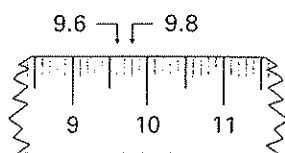
For use with pages 118–121

GOAL Compare and order decimals.

EXAMPLE 1 Comparing Metric Lengths

The width of a small picture frame is 9.6 centimeters. The height of the frame is 9.8 centimeters. Which dimension is longer, the width or the height?

Using a metric ruler, you find that 9.6 centimeters, is to the left of 9.8 centimeters.



Answer: The height of the frame is longer than the width.

Exercises for Example 1

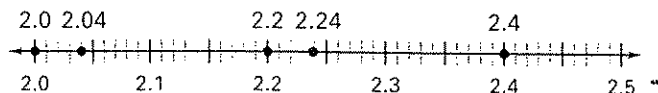
- The height of a gift box is 7.9 centimeters. The base of the box is 8.7 centimeters. Which is longer, the height or the base? *base*
- The height of a postage stamp is 2.4 centimeters. The base of the stamp is 2.2 centimeters. Which dimension is longer? *height*

EXAMPLE 2 Ordering Decimals on a Number Line

Use a number line to order the numbers from least to greatest:

2.04, 2.4, 2, 2.2, 2.24

Graph each number on a number line. Begin by marking tenths from 2.0 to 2.5. Then mark hundredths by dividing each tenth into ten sections.



Answer: An ordered list of the numbers is 2, 2.04, 2.2, 2.24, and 2.4.

Exercises for Example 2

- Order the numbers from least to greatest:

6.7, 6.67, 6.76 *6.67, 6.7, 6.76*

- Order the numbers from least to greatest:

3.5, 3.53, 3.35, 3.55 *3.35, 3.5, 3.53, 3.55*

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EXAMPLE 3 Comparing Decimals

Complete the statement with $<$, $>$, or $=$.

a. 7.981 ? 7.891

7.981
7.891
The ones' digits are the same.
The tenths' digits are different:

$$9 > 8$$

Answer: $7.981 > 7.891$

b. 3.4 ? 3.43

3.40
3.43
The ones' and tenths' digits are the same.
Write a zero.

The hundredths' digits are different:

$$0 < 3$$

Answer: $3.4 < 3.43$

Exercises for Example 3

Complete the statement with $<$, $>$, or $=$.

5. 1.5 $<$ 1.8

6. 2.62 $>$ 2.52

7. 9.0 $=$ 9

8. 4.12 $<$ 4.21

9. 5.73 $<$ 57.3

10. 7.7 $>$ 7.07

EXAMPLE 4 Ordering Decimals

Order the numbers from least to greatest: 4.02, 4.42, 4.24

Write the decimals in a column, lining up the decimal points.

4.02
4.42
4.24
The one's digits are the same.
The tenth's digits are different:
 $0 < 2$ and $2 < 4$

Answer: From least to greatest you have 4.02, 4.24, and 4.42.

Exercises for Example 4

Order the numbers from least to greatest.

11. 8.2, 8.82, 8.28 $8.2, 8.28, 8.82$ 12. 3.2, 3.51, 3.15 $3.15, 3.2, 3.51$

13. 2.16, 2.6, 2.61 $2.16, 2.6, 2.61$ 14. 0.4, 0.14, 0.11, 0.44 $0.11, 0.14, 0.4, 0.44$